Survey of *Cryptosporidium* Testing Practices among FoodNet Laboratories, 1997

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Objective: To identify the indications, methods and positivity rate for the examination of stool specimens for *Cryptosporidium* (CRYP).

Methods: In 1997, a survey was conducted of labs in the Foodborne Diseases Active Surveillance Network (FoodNet), which includes CT, MN, OR, selected counties in CA, GA, MD and NY. Information was collected on CRYP testing indications, methods and the number of stool specimens examined for CRYP during 1996.

Results: Of 341 labs surveyed, 208 (61%) performed ova and parasite (O&P) testing. Of these 208 labs, 161 (77%) offered testing specifically for CRYP. Of the 295,590 stools processed for O&P, 50,811 (17%) included examination for CRYP (9% in NY to 46% in CA). Of the 151 (94%) labs with available data, 31 (21%) tested all specimens submitted for OW for CRYP and 120 (79%) used selective criteria (including physician order, noting structures suggestive of CRYP in regular OW exam, or patient or stool characteristics). Those applying selective criteria tested 8% of stools submitted for O&P. Using selective criteria labs obtained a positivity rate of 3.5% (1.5% in CT to, 7.6% in MN) compared to 0.8% (0.1% in NY to 4.1% in GA) in labs that examined all stools. Methods for CRYP detection were as follows: 120 (75%) labs used add fast staining (AF), 35 (21%) used direct fluorescent antibody stain (DFA), and 16 (9%) used ELISA. Positivity rates for each method were 1.3%, 1.4%, and 6.5% respectively.

Discussion: Few stools submitted for O&P are examined for CRYP and the proportion examined varied by site. Although using selective criteria produced the highest yield, the percentage of stools meeting those criteria was low (only 8%). Positivity rates were comparable for AF and DFA testing; however, rates for ELISA were much higher even when stratified by testing criteria suggesting these tests are either more sensitive or less specific.

Conclusions: Not all labs that test for O&P also test for CRYP, of labs that do, different indications are used. Selective testing for CRYP can potentially lead to an underestimate of the true burden of disease. Provider education regarding O&P testing criteria.and evaluation of the public health impact of undiagnosed CRYP are needed.

Percent of Stools Tested for *Cryptosporidium parvum* by FoodNet Site, 1996

FoodNet Site	No. Labs	No. Stools Tested for O&P*	No. Stools Tested for *C. parvum** (%)
CA	11	27,546	12,572 (46)
CT	31	26,838	3,743 (14)
GA	14	15,493	4,451 (29)
MD	22	22,086	2,626 (12)
MN	41	83,436	12,250 (15)
NY	10	75,493	6,829 (9)
OR	32	44,698	8,340 (19)
Total	161	295,590	50,811 (17)

*Some laboratories may have reported incomplete or missing data.

Cryptosporidium parvum Testing Methods among FoodNet Laboratories, 1997

FoodNet Site#	No. Using Acid Fast Stains* (%)	No. Using Flouresent Antibody Stain (%)	No. Using ELISA** (%)
CA	7 (64)	3 (27)	1 (9)
CT	22 (71)	10 (32)	3 (10)
GA	12 (75)	1 (6)	4 (25)
MD	19 (86)	5 (23)	0
MN	28 (68)	7 (17)	4 (10)
NY	8 (80)	1 (10)	4 (40)
OR	24 (75)	8 (25)	0
Total	120 (75)	35 (21)	16 (10)

*Some laboratories use more than one method for the detection of *C. parvum*.
#Includes acid fast, Kinyoun acid fast, and other modified acid fast stains.
**Enzyme Linked Immunosorbent Assay.

Test all O&P for *Cryptosporidium parvum*		
FoodNet Site	No. Labs (%)	No. Stools Tested* (%)
CA	2 (18)	10,842 (100)
CT	2 (8)	581 (78)
GA	3 (21)	563 (50)
MD	3 (14)	422 (53)
MN	13 (32)	8,341 (57)
NY	1 (10)	1,402 (77)
OR	7 (22)	7,677 (100)
Total	31 (20)	29,575 (80)

*Percentages may not be 100% due to missing or unknown values.

Test for *Cryptosporidium parvum* using selective criteria		
FoodNet Site	No. Labs (%)	No. Stools Tested[£] (%)
CA	9 (81)	1,730 (10)
CT	29 (94)	3,162 (12)
GA	11 (79)	3,888 (27)
MD	19 (86)	2,457 (11)
MN	28 (68)	3,909 (9)
NY**	N/A	N/A
OR	25 (78)	633 (2)
Total	120 (80)	13,724 (8)

**NY questionnaire excluded these questions.
£Some laboratories reported missing or unknown values.

Positivity Rates of *Cryptosporidium parvum* Testing Methods by FoodNet Site, 1996

FoodNet Site[■]	Acid Fast Stains*	Flouresent Antibody Stain	ELISA**
CA	0.9	5.0	7.1
CT	1.4	0.9	4.1
GA	2.0	0.7	24.2
MD	1.8	15.4	N/A
MN	1.5	4.7	9.9
NY	1.8	0.1	0
OR	0.6	0.6	N/A
Total	1.3	1.4	6.5

■Some laboratories use more than one method for detection of *C. parvum*.
*Includes acid fast, Kinyoun acid fast, and other modified acid fast stains.
**Enzyme Linked Immunosorbent Assay.

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